of said sample to determine the composition of said unvolatilized portion.

A2 cont

2. (Amended) The method of claim 1 including

employing a sample containing silicon, and

said unvolatilized portion including trace elements which were contained in said silicon containing sample.

A2

4. (Amended) The method of claim 1 including

performing said process in a closed vessel.

A3

6. (Amended) The method of claim 1 including

employing a vessel which has portions which are transparent to microwave energy.

A4

8. (Amended) The method of claim 2 including

employing a vessel with at least two compartments in communication with each other,

introducing a silicon containing sample and a first acid into a first compartment, and

A5

introducing a second acid into a second compartment.

10. (Amended) The method of claim 9 including

distilling said hydrofluoric acid out of said second compartment and into said first compartment, and

distilling SiF_4 out of said first compartment and into said second compartment.

11. (Amended) The method of claim 1 including

employing microwave energy ~~energy~~ of a frequency of about 27 to 2450 megahertz.

12. (Amended) The method of claim 11 including

employing a vessel composed of a fluoropolymer.

A6

14. (Amended) The method of claim 1 including

during said heating process introducing additional sample into said vessel.

15. (Amended) The method of claim 14 including

said process being a continuous process.

A7

17. (Amended) The method of claim 8 including